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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,209	09/24/2003	Hiroshi Hasegawa	243209US2SRD	1604
22850 7590 01/05/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ANGEBRANNDT, MARTIN J	
			ART UNIT	PAPER NUMBER
			1756	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/668,209

Applicant(s)

HASEGAWA, HIROSHI

Examiner

Martin J. Angebrannt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/23/06, 6/16/06 & 9/24/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-11, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-11, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/16/06 & 9/24/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The response of the applicant has been read and given careful consideration. Responses to the arguments are presented after the first rejection to which they are directed. A corrected copy of the PTO1449 is attached/enclosed.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

“invalid information” in claim 6 lacks antecedent basis it is not clear if it refers by to the invalid information described in claims 13 or introduces another occurrence/type of invalid information.

Further, if this embossed data, then it is provided prior to the writing/recording process and so “recorded” is the wrong term. It may be that this is outside the user recordable data area, in a testing area, but the claim is vague and misleading on this. The applicant refers to user recording on section [0007] of the prepub and replacing “recordable zone” with - - user recordable zone—may serve to address this issue.

4. Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

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Claims 13 describes the invalid information as a pit array in a non-erasable area (non-recording zone) and so precludes this being test recording, synchronous pattern or (electronic) buffering effect. As in this case the information would be written, not embossed pits.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-8,10-11 and 13-14 are rejected under 35 U.S.C. 102(e) as being fully anticipated by Ogawa et al. EP 1176586.

Ogawa et al. EP 1176586 describes with respect to figure 1A, a multilayer medium (see figures 2, 4, 6, which includes the lead in area (203, the lead out are (204), the recording areas and the dummy areas (201). Each dummy area is used to adjust the transmittance and reflectance and to inhibit recording. **The range of the dummy area is determined on the basis of the alignment precision of the multiple recording layers, the divergence of the beam angle and the like.** [0030]. The dummy areas are included in the embossed information with the

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index header. [0046]. The guard zone can also be used for the dummy area. [0049]. The embossed information includes the header and address information. The use of a test recording area is also disclosed [0102,0126].

The presence of embossed dummy data is taught in the reference.

8. Claims 2-8,10-11 and 13-14 are rejected under 35 U.S.C. 102(e) as being fully anticipated by Ohsawa et al. '550

Ohsawa et al. '550 teaches with respect to figures 1-4, multilayered optical recording media having recording areas and leading areas for the two layers (figure 4), where both include address data and one includes lead in area and the other dummy data. (8/13-32) and show the offset of the user recordable areas (figure 2). The guard areas contain embossed address information as well as dummy data (6/54-7/14).

The presence of embossed dummy data is taught in the reference.

9. Claims 2-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. '560, in view of Ogawa et al. EP 1176586 or Muramatsu et al. '548.

Yamamoto et al. '560 describes with respect to figure 4, the preformatted areas (5) in the first recording layer (11), the spacer (15) and a second recording layer (12) with preformatted areas and guard areas(14). The first and second recording areas are phase change recording layers (4/45-5/19). The data in the preformatted areas is recorded as embossed information relating to addresses and the like, with lands and grooves being formed in the recording areas. (2/22-29).

Muramatsu et al. '548 teach with respect to figure 3, the lead in areas (LIA) which includes a reference code zone, a buffer zone, control data zone (readable embossed area), and

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unreadable embossed zone and a second buffer zone. The unreadable embossed area disables writing and readout in that area (3/45-62). The recording of embossed random pits in the control zone is disclosed as preventing readout of the control data and preventing illegal rewriting operations.

It would have been obvious to one skilled in the art to modify the media of Yamamoto et al. '560 by including dummy areas in the lead in area as discussed by Ogawa et al. EP 1176586 or Muramatsu et al. '548 to prevent illegal rewriting operations and/or readout of the control data.

With respect to claim 9, the location of the addresses for specific sectors or the like (as in claim 9) is not considered to provide patentable definition as long as the information is present and is considered a mere design choice and the examiner holds that the placement of specific data in any of various specific locations in a recording medium compatible with conventional formats would have been obvious to one skilled in the art.

The addition of Ogawa et al. EP 1176586 or Muramatsu et al. '548 as discussed above addresses the new issue raised by the applicant and the examiner notes that invalid data pits serve do not serve any function other than filler and so the placement is also held to be a mere design choice, as no effect is ascribed to their placement (particularly for the full scope of coverage sought). There may be a benefit gleaned when the relative positions of the user recording areas of the two recording layers are in a particular position, but the claims are silent on this. The applicant asserts that the claims require a certain relative positioning the data areas of the two recording layers. The size of the zones does not appear in any claims besides claim 2, and does not describe the beam divergence or how the range is defined (does it include the area illuminated

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by the beam or exclude it). The limitation as articulated is nowhere as limiting as the applicant contends, but perhaps a more limited and descriptive claim could obviate at least some of the rejections. The guard area in figure 5 of Yamamoto et al. '560 shows an offset between different areas of the two recording layers and the obviousness of the inclusion of dummy pits in the lead in area (at the inner periphery is clear from the statements of rejection above). The applicant's arguments also fail to account for the use of dummy pits as part of the DVD standard as articulated in column 2 of Muramatsu et al. '548.

10. Claims 2-11 and 13-14 are rejected under 35 U.S.C. 103(a) as obvious over Ohsawa et al. '781, in view of Ogawa et al. EP 1176586 or Muramatsu et al. '548.

Ohsawa et al. '781 teaches recording layers where each recording layer is provided with a writeable AgInTeSb recording layer and a prepit region composed of embossed pits which carry addresses, timing information etc. (6/12-64). Address information may be in both layers (5/10-17). The address information can be formed in the inner or outer periphery (5/18-25). The recording of all the address/predetermined/TOC information for the medium in the deepest layer is disclosed. (5/33-67).

The examiner holds that it would have been obvious to one skilled in the art to form the recording medium described in column 6 with the pre-pit areas for each of the layers are provided in the lead-in areas and therefore they overlap and to modify the resultant media of Ohsawa et al. '781 by including dummy areas in the lead in area as discussed by Ogawa et al. EP 1176586 or Muramatsu et al. '548 to prevent illegal rewriting operations and/or readout of the control data.

The addition of Ogawa et al. EP 1176586 or Muramatsu et al. '548 as discussed above addresses the new issue raised by the applicant.

11. Claims 2-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumagari et al., '057, in view of Ogawa et al. EP 1176586 or Muramatsu et al. '548.

Tsumagari et al., '057 describe a multilayered recording medium is provided with respect to figure 1. The case where both recording layers are phase change recording media and have data recording area (28), lead-in area (27 and a leadout area (26). (6/8-39). The lead in areas include embossed information relating to the disk, such as size, recording density, addresses and the like and a rewritable zone such as recording a disc name, a test recording area and a field to keeping track of damaged area. (8/25-9/46).

It would have been obvious to one skilled in the art to modify the media of Tsumagari et al., '057 by including dummy areas in the lead in area as discussed by Ogawa et al. EP 1176586 or Muramatsu et al. '548 to prevent illegal rewriting operations and/or readout of the control data.

With respect to claim 9, the location of the addresses for specific sectors or the like (as in claim 9) is not considered to provide patentable definition as long as the information is present and is considered a mere design choice and the examiner holds that the placement of specific data in any of various specific locations in a recording medium compatible with conventional formats would have been obvious to one skilled in the art.

The addition of Ogawa et al. EP 1176586 or Muramatsu et al. '548 as discussed above addresses the new issue raised by the applicant.

12. Claims 2-8,10-11 and 13-14 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Ohsawa et al. '231.

See the description with respect to figure 4, which describes plural rewritable layers each with an embossed lead in area. (4/60-5/19). Figure 2 shows the offset of the user data areas =.

It would have been obvious to one skilled in the art to modify the media of Ohsawa et al. '231 by including dummy areas in the lead in area as discussed by Ogawa et al. EP 1176586 or Muramatsu et al. '548 to prevent illegal rewriting operations and/or readout of the control data.

The addition of Ogawa et al. EP 1176586 or Muramatsu et al. '548 as discussed above addresses the new issue raised by the applicant.

13. Claims 2-8,10-11 and 13-14 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Nakamura et al. WO 00/79525 (US 2005/0259561 is English equivalent)

See the description with respect to figure 34, which describes plural rewritable layers learning areas (3401,3404). (37/20-38/7, [0285-0291] in US prepub) The discussion with respect to figure 30 describes the embossed lead in area. (35/2-15, [0268-0270] in US prepub)

It would have been obvious to one skilled in the art to modify the media of Nakamura et al. WO 00/79525 by including dummy areas in the lead in area as discussed by Ogawa et al. EP 1176586 or Muramatsu et al. '548 to prevent illegal rewriting operations and/or readout of the control data.

The addition of Ogawa et al. EP 1176586 or Muramatsu et al. '548 as discussed above addresses the new issue raised by the applicant.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Martin J Angebranndt
Primary Examiner
Art Unit 1756

12/29/2006